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WHO releases report on state of development of antibacterials

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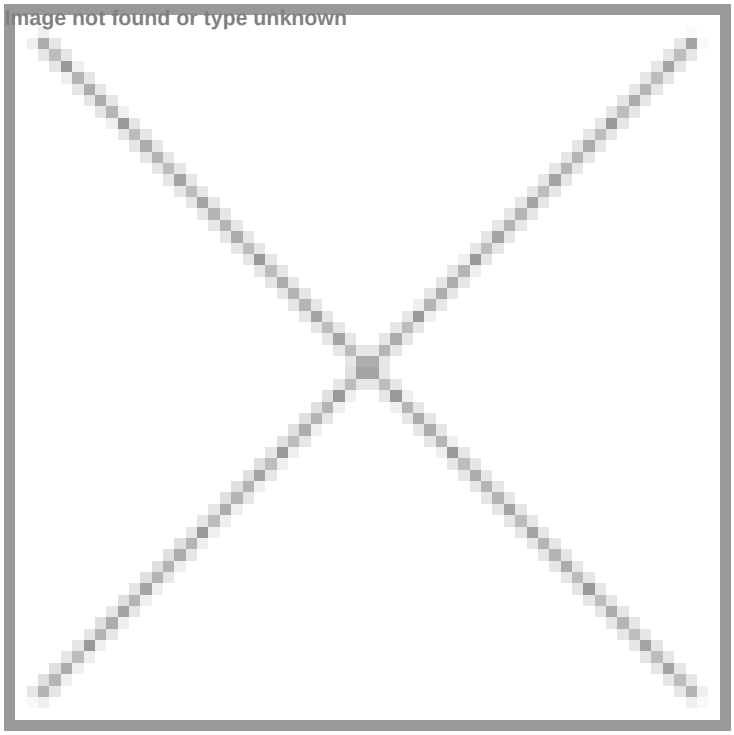
Efforts to develop new antibacterial agents need to be accompanied by parallel efforts to ensure they can be equitably accessed



The World Health Organization (WHO) has released its latest report on antibacterial agents, including antibiotics, in clinical and preclinical development worldwide.

Although the number of antibacterial agents in the clinical pipeline increased from 80 in 2021 to 97 in 2023, there is a pressing need for new, innovative agents for serious infections and to replace those becoming ineffective due to widespread use.

First released in 2017, this annual report evaluates whether the current research and development (R&D) pipeline properly addresses infections caused by the drug-resistant bacteria most threatening to human health, as detailed in the 2024 WHO bacterial priority pathogen list (BPPL). Both documents aim to steer antibacterial R&D to better counter the ever-growing threat of antimicrobial resistance (AMR).

Not only are there too few antibacterials in the pipeline, given how long is needed for R&D and the likelihood of failure, there is also not enough innovation.

Of the 32 antibiotics under development to address BPPL infections, only 12 can be considered innovative. Furthermore, just 4 of these 12 are active against at least 1 WHO ‘critical’ pathogen, critical being the BPPL’s top risk category, over ‘high’ and

‘medium’ priority.

There are gaps across the entire pipeline, including in products for children, oral formulations more convenient for outpatients, and agents to tackle rising drug resistance.

Encouragingly, non-traditional biological agents, such as bacteriophages, antibodies, anti-virulence agents, immune-modulating agents and microbiome-modulating agents, are increasingly being explored as complements and alternatives to antibiotics. However, studying and regulating non-traditional agents is not straightforward. Further efforts are needed to facilitate clinical studies and assessments of these products, to help determine when and how to use these agents clinically.